

L 1355-66

ACCESSION NR: AP5021938

3

whereas at $T_g = 475^\circ$ they were not detected at all. The dependence of the dimensions of regions of coherent scattering (r.c.s.) and magnitude of microdeformations on T_g is nonmonotonic. At $T_g = \sim 380^\circ\text{C}$ the r.c.s. decrease and microdeformations increase, which is in agreement with the decrease in the microhardness of the film. The film containing mostly cubic cobalt Co^c displays both types of packing defects at $T_g = 240^\circ\text{C}$. Deformation-caused packing defects are less heat-resistant than growth defects; at 530°C they can no longer be detected, whereas the probability of growth defects persists as far as 610°C , at which temperature two varieties of cubic Co can be detected: one defect-free, forming in the process of heating, and the other with growth defects, forming in the process of condensation. The high probability of packing defects in vacuum-condensed cobalt films as compared with the vacuum-condensed films of other metals is conditioned by the specific nature of polymorphism in cobalt as well as by the low energy of packing defects in this metal. Harmonic analysis of line profile is the most reliable method of determining the probability of packing defects in vacuum-condensed cobalt. Orig. art. has: 3 figures, 3 tables, 4 formulas.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut im. V. I. Lenina ⁴⁴⁵⁵ (Khar'kov)

Card 2/3

L 1355-66

ACCESSION NR: AF5021938

Polytechnic Institute)

SUBMITTED: 09Jul64

ENCL: 00

SUB CODE: SS, MM

NO REF SOV: 009

OTHER: 004

Card

3/3

FUKS, M.Ya.; KOZ'MA, A.A.; PAIATNIK, L.S.

Investigating the defects of packing the dispersion of content scattering regions, and microdeformations in permalloy and nickel condensation films. Fiz. met. i metalloved. 20 no.4: 103-110 J1 '65. (MIRA 18:11)

1. Khar'kovskiy politekhnicheskii institut imeni V.L. Lenina.

BARTOK, M.; KOZMA, B.

Investigation of the chemical transformations of diols and organic oxides. Pt.6. Acta phys chem Szeged 9 no. 3/4:116-123 '63.

1. Kafedra organicheskoy khimii universiteta im.Yozhef Attila, Szeged.

BARTOK, M.; KOZMA, B.; AP'OK, Y. [Apjok, J.]

Reaction of 1,3-butanediol with acetyl chloride. Izv. AN SSSR
Ser. khim. no.12:2192-2197 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii universiteta imeni Yozhefa
Attily, g. Seged, Vengriya.

SIUYKIN, N. I.; BEL'SKIY, I. F.; KARAKHANOV, R. A.; KOZMA, B.; BARTOK,
M.

Isomerization of tetrahydropyrans. Izv AN SSSR Ser Khim
no. 4:747-750 Ap '64. (MIRA 17:5)

1. Institut organicheskoy khimii im. N. D. Zelinskogo
AN SSSR.

KOZMA, B.; RAJKAY, O.

Forecasting the passage and pressure of wind. p. 129.
IDOJARAS. Budapest. Vol. 59, no. 3, May/June 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, No. 2,
February 1956

KOPPANY, Gy.; HILLE, Alfred; KAKAS, Jozsef; FUTO, Jozsef; KERI, Menyhart; PECZELY, Gyorgy; KOZMA, Bela; SZAPPANOS, Andras; AMBROZY, Pal; GOTZ, Gusztav; PAPP, Laszlo; BELL, Bela; MARTOS, Andras; BACSO, Nandor; HAJOSY, Ferenc; CSAPODY, Istvan; NAGY, Laszlo, igazgato foorvos; DONASZY, Erno; BORONKAI, Pal; ANTAL, Emanuel; TANCZER, Tibor; OZORAI, Zoltan

The 10th itinerant meeting of the Hungarian Meteorological Society in Sopron. Idojaras 68 no.4:249-250 J1-Ag '64.

1. President, Hungarian Meteorological Society (for Hille).
2. Editor, "Idojaras" (for Kakas).
3. Editorial Board Member, "Idojaras", Budapest (for Ambrozy, Bell, Keri, Ozorai).

KOZMA, Bela

Investigation of wind pressure maxima at the three observatories
of the German Democratic Republic. Orsz meteor int besz tud kut
25:39-40 '61 (publ.'62).

KOZMA, Bela

Relationship between precipitation amounts and pressure areas.
Orsz meteor int besz tud kut 26:71 '62(publ.'63).

L 34191-66 FCC.

ACC NR: AP6026004

SOURCE CODE: GE/0064/65/018/03-/0119/0123

AUTHOR: Kozma, Bela (Doctor; Budapest)

ORG: Central Institute for Meteorology, Budapest, Hungary

TITLE: Relation between the amount of total precipitation and pressure distribution.
Part 1

SOURCE: Zeitschrift fur Meteorologie, v. 18, no. 3-4, 1965, 119-123

TOPIC TAGS: atmospheric precipitation, atmospheric pressure, atmospheric moisture, thermodynamic characteristic, atmospheric phenomenon

ABSTRACT: The relation between the amount of precipitation observed during a period of precipitation (as characterized by two distinct separation points on the barogram) and the distribution of pressure over the area where precipitation is released by the ascending air was investigated theoretically. The calculation is based on numerical integration yielding the volume of air contributing to the precipitation. The computational steps include the characterization of the air volume and its moisture content, determination of the amount of air contributing to the precipitation, and dynamic-thermodynamical characterization of the phenomena involved. Examples were presented and discussed. Orig. art. has: 1 figure and 15 formulas. [JPRS: 32,859]

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 003

Card 1/1

UDC: 551.511.3: 551.577.21: 551.542

0976

1025

KOZMA, Damian

Radims rolnikom v pravnych otazkach. (We Advise Farmers in Legal Problems. bibl.) Bratislava, Slov. vyd. podohosp. lit., 1957. 181 p. Vol. 42 of the series Polnoho podarska ekonomika (Agricultural economics).

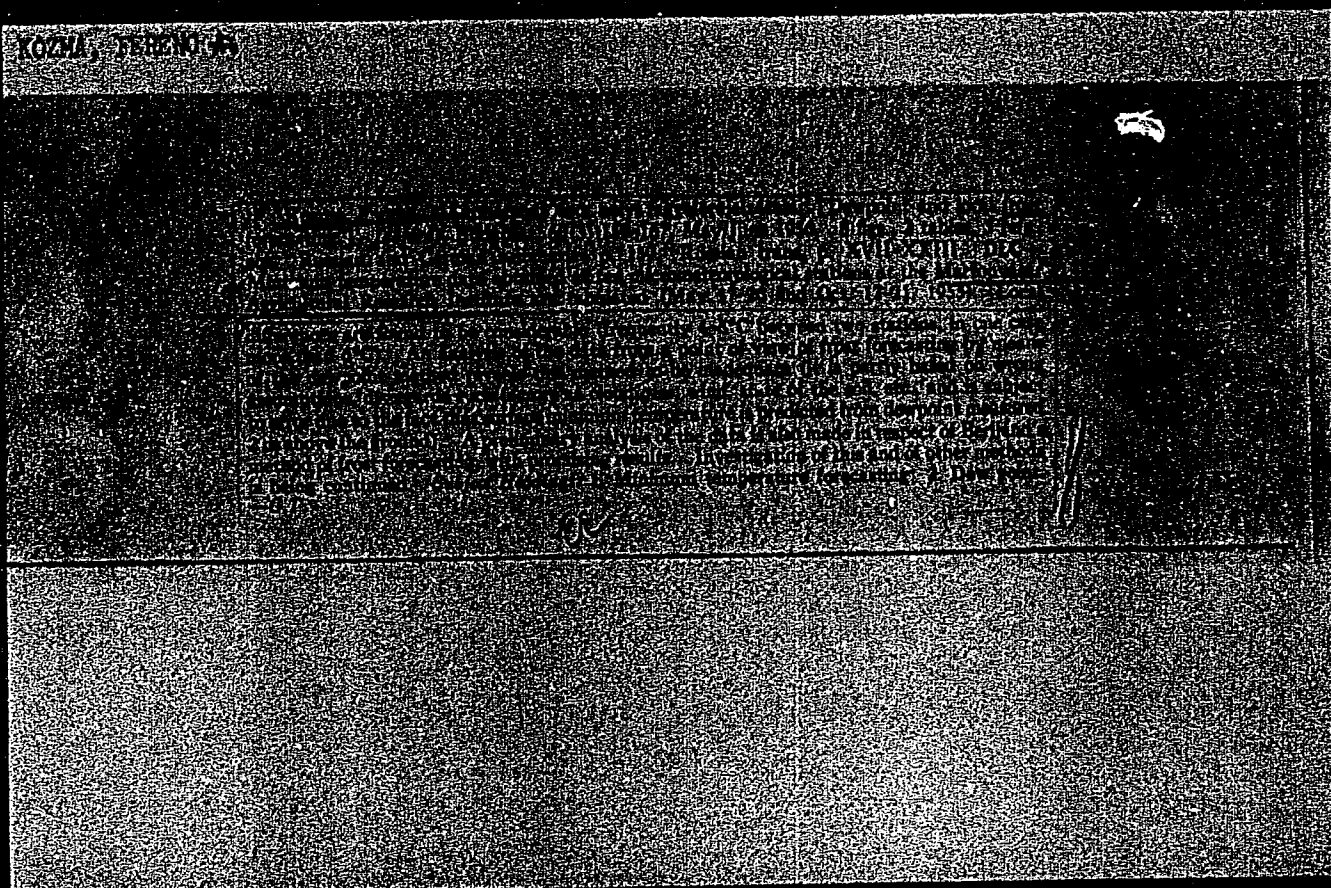
The pamphlet has 4 parts: the first part contains explanations of some current problems concerning the organization of agricultural cooperatives; the second part informs the farmers about the basic rules of agricultural bulk-buying; in the third part the reader will find interesting problems of civil law and in the fourth part tax regulations.

Bibliograficky katalog, CSR, Slovenske knihy, Vol. VIII. 1957. No.10. p.307.

V.KOZMA, Erzsebet

Chemical analysis of the fish ponds and feed canals of the
Buzsák fish hatchery. Hidrológiai közlöny 41 no.6:524-528
D'61.

1. Magyar Dunakutató Allomás, Budapest.



KOZMA, F.

Temperature conditions of coils covered by various materials.

I. 199. (IDOLJASIS) Vol. 87, no. 7, July 1957
Budapest, Hungary

SO: Monthly Index of East European Accessions (MIEA) Vol. 7, No. 3,
1958

KOZMA, F.

SCIENCE

PERIODICALS: ~~ACTA ZOOLOGICA. Vol. 62, No. 3, May/June 1958~~
IDOJARAS. Vol. 62, No. 3, May/June 1958

Kozma, F. Daily evolution of the temperature of cultivated and covered soils. p. 150.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2
February 1959, Unclass.

KOZMA, Ferenc; STOLLAR, Andras; SZILAGYI, Tibor

Aspiration psychrometer with a thermistor. Idojaras 64 no.1:44-47
Ja-F '60. (EEAI 10:1)
(Hungary--Hygrometry)
(Thermistors)

KOZMA, Ferenc

On the radiation type of nocturnal soil temperature. Idojaras 64 no.4:
235-238 J1-Ag '60. (EEAI 10:2)
(Soils)

KOZMA, Ferenc; STOLLAR, Andras; SZILAGYI, Tibor

The role of snow cover in the formation of the temperature of air, soil and plants. Idojaras 65 no.4:220-225 J1-Ag '61.

BOGNAR, Karoly; KOZMA, Ferenc

On the micrometeorological investigation of joint grapefruit
growing. Idojaras 65 no.6:366-369 D '61.

KOZMA, Ferenc

Thermistor equipment for measuring the temperature and
moisture of the atmosphere. Idejaras 66 no.3:180-181
My-Je '62.

KOZMA, Ferenc; SZILAGYI, Tibor

Temperature and moisture of sandy soils. Orsz meteor int besz
tud kut 25:105-113 '61 (publ.'62).

KOZMA, Ferenc; SZILAGYI, Tibor

The effect of the soil heat flow on the cooling of the air layers
situated near the ground. Idojaras 67 no.1:43-46 Ja-F '63.

KOZMA, Ferenc

Conditions and frequency of the aboveground development of
the temperature minimum. Idojaras 67 no.2:104-107 Mr-Ap '63.

KOZMA, Ferenc; STOLLAR, Andras

Effect of clouds on the cooling of air layers near the ground.
Idojaras 67 no.5:297-299 S-O '63.

KOZMA, Ferenc

Nighttime energy fluctuation in air layers near the
ground. Idojaras 68 no.1:33-41 Ja-F '64.

KOZMA, Ferenc, erdomernok

Forest management and conservation of natural resources. Erdo
13 no.8:359-361 Ag '64

1. No.5 Forest Management, Kaposvar.

KOZMA, Ferenc, dr., kandidatus tudományos munkatárs

Measuring the state of economic development. Stat szemle
42 no.12:1248-1255 D '64.

1. Institute of Economics of the Hungarian Academy of Sciences,
Budapest.

Kozma, Gy.

Operational experiences with district heating in Sztalinvaros. B. 447

ENERGIA ES ATOMTECHNIKA. (Energiagazdalkodasi Tudomanyos Egyesulet)
Budapest, Hungary. Vol. 12, no. 7/8, July/August 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no.11
November 1959
Uncl.

KOZMA, Gyula, dr.

Surgical treatment of a case of cholelithiasis ileus. Orv. hetil. 103
no.32:1514-1516 12 Ag '62.

1. IX. ker. Tanacs VB. Gyali uti Korhaza, Sebeszeti Osztaly.
(INTESTINAL OBSTRUCTION etiol) (CHOLETHIASIS compl)

KEZMA, Sylvia; QUITTNER, Det

Transistorized glass-amplifier converter operating in a nanosecond range. Koz file 1127 MTA 13 call:32-39 '65.

1. Submitted October 28, 1964.

Kozma, G.

RUMANIA/Human and Animal Physiology - Metabolism.

V-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17977

Author : B. Major, P. Doczy, G. Kozma, S. Magyari and M. Janka

Inst : -

Title : Daily Changes in Blood Iron Content.

Orig Pub : Comun. Acad. RPR, 1957, 7, No 2, 267-271

Abstract : Eleven human subjects went without food during the day and took their meals at night with the ordinary intervals between them, during which they slept. It was found that the iron content of the blood decreased gradually and reached its lowest value at about noon of the following day, just as among persons eating at normal hours the maximal reduction in blood iron content occurred toward midnight.

Among the individuals who received no food during the day, the iron content of the blood increased toward evening. The daily changes in blood iron content, as the authors note, are associated with food intake.

Card 1/1

KARSAY, Gyula, dr.; KOZMA, Gyorgy, dr.; ARATO, Karoly, dr.

On clinical picture in epigastric hernia. Orv.hetil. 101 n0.50:
1780-1781 11 D'60.

1. Fovarosí Janos Korhaz, I. sz. Bel- es Rontgenosztaly.
(HERNIA VENTRAL)

HALMOS, Tamas, dr.; KOZMA, Gyergy, dr.

Acute anuria due to a mercurial diuretic. Orv. hetil. 102 no.17:
797-798 23 Ap '61.

1. Fovarosí Janos Korhaz, I sz. Belgyógyászati Osztaly.

(ANURIA etiol) (DIURETICS MERCURIAL toxicol)

KORANYI, Andras, dr.; HALMOS, Tamas, dr.; KOZMA, Gyorgy, dr.

Experience with a biguanide derivative in the treatment of diabetes.
Orv. hetil. 103 no.22:1029-1032 3 Je '62.

1. Fovarosí Tanács János Korhász, I. Belosztály.
(ANTIDIABETICS ther)

KOZMA, I.

"Following the path of Soviet millionaires; a conversation with Istvan Kapitany, one of the best first-class pilots of the MASZOVLET (Hungarian-Soviet Airways Company)". p. 7. KOSZMAI Istvan; KOSZMAI, ISTVAN. Vol. 3 no. 24, Dec. 1953, Budapest, Hungary.

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 4, April 1954

KOZMA, I.

"How Should Aviation and Parachute Sports Not Be Helped?", p. 11
(REPULES, Vol. 7, no. 4, Feb. 1954, Budapest, Hungary).

Source: Monthly List of East European Accessions, LC, Vol. 3,
no. 5, May 1954/Uncl.

KOZMA, I.; BAGAYEV, V.P. [translator]; IL'IN, I.S. [translator]; PETROV,
I.A. [translator]; LEPNIKOVA, Ye., red.; DUDNICHENKO, E., mald.
red.; NOGINA, N., tekhn. red.

[Agriculture of the Rumanian People's Republic on the way to
socialism] Sel'skoe khoziaistvo Rumynskoy Narodnoi Respubliki na
puti sotsializma. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1961. 99 p.
(MIRA 14:10)

(Rumania—Agriculture)

HADNAGY, Csaba, dr.; KREPSZ, Ivan, dr.; BARTEL, Gyorgy, dr.;
SZABO, Istvan, dr.; KOZMA, Jozsef, dr.

Study on the effect of x-rays on antibody formation. Magy.
radiol. 8 no.1:57-59 Feb 56.

1. A Marosvasarhelyi Vertarolo es Veratomleszto Kozpont (igazgato:
Hahnagy Csaba dr. foorvos), a Marosvasarhelyi Orvostudomanyi es
Gyogyszereszeti Falso Oktatasu Inteze. Intezet Radiologiai Osztalya
(igazgato: Krepsz, Ivan dr. egy. eloado-tanar) kozlemenye.

(ROENTGEN RAYS, eff.

total body on antibody form. in rabbits against sheep
erythrocytes, inhib. (Hun))

(ANTIGENS AND ANTIBODIES

antibody form. in rabbits against sheep erythrocytes,
inhib. by total body roentgen ray radiation.(Hun))

PETERFI, Istvan; BRUGOVITZKY, Edit; KOZMA, Jozsef; NAGY TOTH, Ferenc

The effect of degranol on the growth of plants. Biol kozl 7
no.1/2:39-44 '59.

KOZMA, J.

PETERFI, I.; BRUGOVITZKY, Edith; KOZMA, J.; NAGY TOTH, F.

The effect of Degranol on the growth of plants. In English. Acta
biol.Hung. 10 no.2:187-196 '59. (EBAI 9:5)

1. Department of Plant Physiology, Bolyai University Cluj, Roumania.
(Plants) (BCM)

KOZMA, Lajos, dr.

Economic problems of the quality and classification of
beef cattle. Elelm ipar 18 no.10:316-321 0 '64.

1. Institute of Food Industry Economics and Organization,
Budapest.

KOZMA, L.

Methods and possibilities for increasing the operations of forestries in the field of manufacturing wood products. p. 330.

AZ ERDO. (Orszagos Erdeszeti Egyesulet) Budapest, Hungary, Vol. 8, No. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11, November 1959,
Uncl.

KOZMA, László, dr. vezető főorvos.

A report of on one-year long activity of the VII. district
tuberculous patients division attached to the Tuberculosis
Institute. Tuberk. kérdései 8 no.3:82-83 June 55.

1. A fővárosi Koranyi Kórház (igazgató: Pethő Imre dr.)
tudosztályának (főorvos: Kozma László dr.) és fővárosi VII. ker. tbc.
gondozó intézetnek (központi igazgató: Szakkay Antal dr.)
közleménye.

(TUBERCULOSIS, prev. and control
in Hungary)

KOZMA, Laszlo

"Internal combustion engines" by [Dr.] Aurel Jarek. Reviewed by
Laszlo Kozma. Jarmu mezo gep 9 no.11:435-436 N: '62.

Rev1

KOZMA, Laszlo

The Hidro-Mekan hydromechanical change gear. Musz elet 19
no. 4: 12 13 F '64.

KOZMA, L.

Experimental studies on the correlation of laws governing
fluorescence and temperature radiation. Acta phys chem
Szeged 9 no. 3/4:59-69 '63.

1. Institut für Experimentalphysik der Jozsef Attila
Universität, Szeged.

KOZMA, L.

"Battery-voltage problems in crossbar-telephone exchanges." In English,
p. 299

PERIODICA POLYTECHNICA. (Budapesti Muszaki Egyetem) Budapest, Hungary,
Vol. 2, No. 4, 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959
Uncl.

KOZMH, h

100/00 601.142-022.8
A new digital computer designed at the Budapest Polytechnical University (in English) L. Kozma, *Periodica Polytechnica, Electrical Engineering*, Vol. 8, 1968, No. 4, pp. 321-342, 12 figs.

The computer designed and assembled at the University operates on the binary system by programme control and is composed of electromagnetic relays. Separate punched programme cards made of an insulating material are used for each operation. The cards are electrically scanned. The data of the problem to be solved are fed by means of a decimal keyboard to the scanner which transposes them into binary signals for storage. After storing the data, the computer operates automatically in accordance with the programme. The results yielded by the binary system are typed in the decimal system on an electromechanically operated conventional office typewriter. The computer primarily serves didactic purposes but is suitable for solving a great variety of mathematical problems as well.

Inst. of Telecommunication, Polytech. Univ.
Budapest

KOZMA, Laszlo, a muszaki tudomanyok doktora; BALAS, Arpad; GAL, Jozsef

Problems occuring at the introduction of telephone systems of the crossbar type: also, remarks by A.Balas, and J.Gal. Muszaki kozl MTA 26 no.1/4:151-163 '60. (EEAI 9:10)

1. Bydapesti Muszaki Egyetem, Vezetekes Hiradastechnikai Tanszek (Telephone)

KOZMA, L. prof. (Budapest XI., Stepcsek u.2)

Development problems of telephone exchanges. Periodica polytechn
electr 5 no.3:197-214 '61.

1. Department of Telecommunication, Polytechnical University.

KOZMA, Laszlo

Problems relating to the development of telephone technology.
Muszaki kozl MTA 31 no.1/4:405-426 '62.

1. Magyar Tudomanyos Akademia levelezo tagja.

KOZMA, Laszlo

Work and objectives of the Institute of Vehicle Development.
Kozleked kozl 20 no.46,748-749 15 N '04.

1. Technical Secretary, Institute of Vehicle Development,
Budapest.

DOMBI, J.; KETSKEMETY, I.; KOZMA, L.

An analytic interpretation of absorption and fluorescence spectra of solutions. Acta phys chem Szeged 10 no.1/2:15-22 '64.

1. Institut für Experimentalphysik der Attila Jozsef Universität, Szeged.

KOZMA, L.; SZALAY, L.; HEVESI, J.

Further investigations on the validity of Stepanov's relation
in viscous luminescent solutions. Acta phys chem Szeged 10 no.
3/4:67-77 '64.

1. Institute of Experimental Physics, Attila Jozsef University,
Szeged.

KOZMA, L.; HEVESI, J.; HORVAT, R.

Contribution to the question of the yield of luminescent solutions. Acta phys chem Szeged 10 no.3/4:79-84 '64.

1. Institut fur Experimentalphysik der Attila Jozsef Universitat, Szeged.

51670-62 ENT(0) PL-1 100(s)
ACCESSION NRI AP5011128

UR/0051/65/018/004/0710/0711

AUTHORS: Dombi, V. (Dombi, J.); Ketskemeti, I. (Ketskemeti, I.); Kozma, L.

TITLE: Contour of spectra of fluorescent solutions

SOURCE: Optika i spektroskopiya, v. 18, no. 4, 1965, 710-711

TOPIC TAGS: fluorescent solution, absorption spectrum, emission spectrum, organic dye

ABSTRACT: Expressions are written out for the absorption and emission spectra of fluorescent solutions, on the basis of the experimentally demonstrated fact that the connection between them can be simultaneously characterized by at least an approximate mirror symmetry and by a modified Stepanov relationship (DAN SSSR v. 112, 839, 1957 and elsewhere), as shown by the authors in an earlier paper (Akh. Fiz. v. 7, 343, 1961). These formulas

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ACCESSION NR: AF5011128

involve a symmetrical function of the frequency difference, the experimental values of which do not agree with the theory because of the approximate nature of the assumptions. The authors then report briefly on the experimental values of these functions obtained for triphenylamine, eosin, rhodamine orange, Al-morin, fluorescein, rhodamine B, eosin, and Bengal rose, and compare the results of the theoretical values. A detailed report will be published in Acta Phys. et Chem. Szeged. Original article has 2 figures and 2 formulas.

ASSOCIATIONS: Department of Experimental Physics, Szeged Univ. 6400, Hungary

SUBMITTED: 03 Apr 64

ENCL: 00

SUB CODE: 00

NR REF BOW: 002

OTHER: 000

Card

2/2

L 2976-66 EWT(1)

LJP(c)

ACCESSION NR: AP5022868

UR/0051/65/019/003/0434/0440

535.372

AUTHOR: Kheveshi, Ya.; Kozma, L. 44, 55

34
31
B

TITLE: The quantum yield of anti-Stokes fluorescence 44, 55

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 434-440

TOPIC TAGS: Raman scattering, anti Stokes radiation, Raman spectroscopy, quantum yield fluorescence, fluorescence yield

ABSTRACT: Under the assumption that the quantum fluorescence yield n is determined by inactive absorption and that both active and inactive absorption decrease exponentially with the frequency ν of the exciting light, it is shown that for the anti-Stokes region

$$n(\nu) = \frac{B}{C + \exp(\nu_0 - \nu)}$$

where $\nu_0 > \nu$ is the frequency of the electronic transition and B , C , and M are constants to be determined from the experimental curve. The frequency ν_0 can

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3

be determined from the point at which the absorption curve crosses the fluorescence curve. Experimental measurements of $\eta(\nu)$ for nine different substances were in good agreement with the formula. The determination of the constants M, B, and C can be made from only a few experimental points and applied in calculating $\eta(\nu)$ in the region for which experimental measurements are difficult to make. It was established that the decrease of $\eta(\lambda)$ depends not only on the temperature but also on the luminescence centers and solvents. Orig. art. has: 4 formulas, 4 figures, and 2 tables. [CS]

ASSOCIATION: Universitet im. Iozhefa Atily. Kafedra eksper. fiziki (Iozhefa Atily University. Department of Experimental Physics)

SUBMITTED: 15Jan65

ENCL: 00

SUB CODE: 0P

NO REF SOV: 009

OTHER: 008

ATD PRESS: 4109

BVK
Card 2/2

L 31350-66

ACC NR: AT6021145

SOURCE CODE: HU/2504/65/050/000/0153/0166

AUTHOR: Kozma, L.—Koz'ma, L. (Corresponding member MTA)

38
B+1

ORG: none

TITLE: Speeding up the digit transmission by telephone subscribers

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 50, 1965, 153-166

TOPIC TAGS: telephone equipment, telephone signal, signal to noise ratio, signal transmission, telephone system

ABSTRACT: The limitations imposed on telephone equipment to attain greater speeds of digit transmission were analyzed with the aim of establishing the means whereby this transmission could be accelerated. Safe digit transmission speed increase was found to be possible by improving the signal-to-noise ratio, possibly by a greater degree of decentralization such as by the use of concentrator-type exchanges. This latter type of exchange need not be decentralized in its entirety to achieve the desired results. Another advantage of the use of these exchanges would be an increase in the transmission power for the individual telephone sets involved. Orig. art. has: 8 figures and 1 table.

[Orig. art. in Eng.] [JPRS]

SUB CODE: 17 / SUBM DATE: 28Aug64 / OTI REF: 004

Card 1/1 CC

ACC NR: AP7000036

SOURCE CODE: UR/0051/66/021/005/0650/0654

AUTHOR: Kozma, L.; Kheveshi, Ya.--Hevesi, J.

ORG: Josef Atilla University, Szeged, Dept. of Experimental Physics

TITLE: Concerning the yield of anti-Stokes fluorescence

SOURCE: Optika i spektroskopiya, v. 21, no. 5, 1966, 650-654

TOPIC TAGS: fluorescence spectrum, quantum yield, light absorption, light excitation, temperature dependence

ABSTRACT: This is a continuation of earlier work (Opt. i spektr. v. 19, 434, 1965 and preceding papers) where a formula for the quantum yield of the anti-Stokes fluorescence as a function of the exciting frequency was obtained on the basis of the assumption that the inactive absorption decreases exponentially in the anti-Stokes region. In the present paper the authors compared the yield calculated by means of this formula with new experimental data obtained on a number of organic fluorescent solutions. Eighteen solutions of eleven luminescence substances were investigated. Tables and plots showing the results are included. The experimental results show that the investigated luminescence substances can be subdivided into two groups, depending on the influence of the temperature on the quantum-yield plot against the frequency. The first includes substances in which the yield changes strongly with temperature in the entire anti-Stokes region, and the second contains substances in which the temperature has little effect. The first includes alcohol, glucose, and

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UDC: 535.371

ACC NR: AP7000036

glycerin solutions of fluorescein, glycerin solutions of tripoflavin and rhoduline orange and rhodamine-B, and alcohol solutions of eosin and erythrosine as well as the aqueous solutions of fluorescein and the alcohol solutions of tripoflavin investigated earlier. The second group includes alcohol solutions of phloxin, Bengal rose, flavophosphine, and aurophosphine. Differences between the present results and those published by others are discussed. Simultaneously with measuring the quantum yield the authors investigated carefully the absorption spectra, and found that the absorption coefficients of the first group change with temperature, resulting in an increase of spectral width. The absorption coefficients of the second group do not change with temperature. The slopes of the quantum-yield curves are affected by the type of solvent used. Typical values are (in multiples of 10^{-14}) 10.8, 12.0, 11.8, and 13.5 for glucose, water, ethyl alcohol, and glycerin, respectively. The temperature dependence is attributed to changes in the populations of the vibrational levels of the molecules. Some unexplained points are briefly discussed. The authors thank A. Budo and I. Ketskemety for continuous interest and useful advice. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 19Mar66/ ORIG REF: 003/ OTH REF: 003

Card 2/2

L 44034-66 IJP(c)

ACC NR: AP6032568 SOURCE CODE: HU/0034/65/013/002/0157/0180

AUTHOR: Szalay, Laszlo; Hevesi, Janos; Kozma, Laszlo 26
B

ORG: Institute for Experimental Physics, Jozsef Attila Scientific University, Szeged
(Jozsef Attila Tudományegyetem Kísérleti Fizikai Intézete)

TITLE: Relations between the absorption and fluorescence spectra of luminescent substances

SOURCE: Magyar fizikai folyoirat, v. 13, no. 2, 1965, 157-180

TOPIC TAGS: fluorescence spectrum; luminescent material

ABSTRACT: The relations between the absorption and fluorescence spectra of luminescent substances were discussed on the basis of references in the literature with especial emphasis on the relation described by Stepanov, B. I. (DAN SSSR, vol. 112, 1957, p. 839). Relations between fluorescence spectrum, thermal radiation spectrum, and quantum efficiency; the effects of extinction, excitation light frequency, and solvent on the relations between absorption and emission spectra; and relations between the excited molecules and the liquid medium were investigated to establish and extend the validity of the Stepanov relation. The techniques employed and the results obtained in these investigations were presented and discussed in detail. The techniques described included a novel one based on local temperature. The authors thank Academician Budo Agoston of the Institute of Experimental Physics at Jozsef Attila Medical University for guidance as well as useful discussions. Orig. art. has: 13 figures, 17 formulas, and 5 tables. JPRS: 35,386

SUB CODE: 20 / SUBM DATE: 13Jul64 / ORIG REF: 015 / SOV REF: 018

OTH REF: 017

Card 1/1 blg

0919 2420

L 44112-66 IJP(c)

ACC NR: AP6018646 SOURCE CODE: PO/0045/66/029/001/0057/0064

AUTHOR: Hevesi, J.; Kozma, L.; Szalay, L.

ORG: Institute of Experimental Physics, Jozsef Attila University,
Szeged, Hungary

TITLE: Temperature dependence of the relationships between absorption
and emission spectra in luminescent solutions

SOURCE: Acta physica polonica, v. 29, no. 1, 1966, 57-64

TOPIC TAGS: absorption spectrum, emission spectrum, luminescent material,
~~solution~~, temperature dependence

ABSTRACT: Stepanov's relation (Stepanov, B. I., Dokl. Akad. Nauk SSSR, 112, 839 (1957)) and its modified form for absorption and emission spectra proved to be valid for luminescent solutions in the temperature range 262—358K. In the ethanol and glycerol solutions investigated the activation energy of the interaction of the solvent and solute molecules was estimated to be 2.5—3.2 kcal/mol from the temperature dependence

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L 44112-66

AGC NR: AP6018615

of the spectra. The authors owe sincere thanks to Professor Dr. A. Budo, member of the Hungarian Academy of Sciences, for most valuable discussion during the work. Orig. art. has: 5 figures, 3 tables, and 8 formulas. [Authors' abstract.] [KS]

SUB CODE: 20/ SUBM DATE: 21Jul65/ ORIG REF: 005/ SOV REF: 005/
OTH REF: 005

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SOURCE: East European Accessions List (EAL) Vol. 6, No. 4--April 1957

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SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

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1. Kozlemeny a jaszberenyi varosi korhaz belgyogyaszati osztalyarol.
(GERIATRICS hosp & olin)

KOZMA, K.
(1-2740)

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Description of the operative technique of leucotomy in dogs. The method seems
to be suitable for the study of the structural and functional activities of the cortex.
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SO: EXCERPTA MEDICA Vol. 5 No. 7 Sec. VIII July 1952

Kozma, M.

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3 no.3:243-251 1953. (CML 25:5)

1. Of the Neuro-Psychiatric Clinic (Head--Prof. I. Huszak,
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Rejdestani Intézete.

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lymphatic vessels, histol. studies in exper. animals (hun))

(LYMPHATIC VESSELS, anat. & histol.

in musc., histol. studies in exper. animals (Hun))

KOZMA, Marta; GELLETT, Albert

Nerve cells and microscopic ganglia of the glossopharyngeal nerve.
Kiserletes orvostud. 10 no.2-3:183-185 Apr-June 58.

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(NERVES, GLOSSOPHARYNGEAL, anat. & histol.
nerve cells & microscopic ganglia, histol. (Hun))

GELLERT, Albert; KOZMA, Marta; POBERAI, Maria; LIPPAI, Jozsef

Data on the problem of autonomic innervation of the smooth muscle. Kiserletes Orvostudomány 12 no.1:35-39 F '60.

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(MUSCLES innervation)

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Acta Morph. Acad. Sci. Hung. 11 no.2:229-238 '62.

1. Institut für Anatomie, Histologie und Embryologie der Medizinischen
Universität, Szeged (Vorstand: Prof. A. Gellert)

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FOLDI, M., dr.; KUKAN, F., dr.; SZEGHY, G., dr.; GELLERT, A., dr.; KOZMA, M.,
dr.; POENRAI, M., dr.; ZOLTAN, O.T., dr.; VARGA, L., dr.

Anatomical, histological and experimental data on the fluid circulation
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(EYE)

(EYE PROTEINS)

(LYMPHATIC SYSTEM)

Anatomy

3

HUNGARY

FOLDI, Mihaly, Dr of med. sci., GELLERT, Albert, Cand. of med. sci., KOZMA, Marta, POBERAI, Maria, ZOLTAN, O., Tamas, OSANDA, Endre, Cand. of med. sci., Medical University of Szeged, II. Medical Clinic, Institute of Anatomy, and Neurological and Psychiatric Clinic (Szegedi Orvostudományi Egyetem, II. sz. Belklinika, Anatómiai Intézet és Ideg-Elmekortani Klinika).

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Budapest, A Magyar Tudományos Akadémia V. Orvosi Tudományok Osztályának Közleményei, Vol XVII, No 1, 1966, pages 93-100

Abstract: [Authors' Hungarian summary] By the method of experimental lymphatic edema produced by "self-injection with lymphatic fluid," the lymphatic vessels in the substance of the dura mater at the skull base and their connection with the tr. lymphaticus cervicalis were demonstrated. In contrast to the uncertainties and inadequacies found in the literature, this observation provides a morphological confirmation of the lymphatics in the area of the dorsal sulcus and also explains the severe morphological and functional changes seen after radical ligation of the cervical lymphatic ducts. All 9 references are Western. [Manuscript received 13 Jul 65.]

1/1

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Means for the cutting-in of intermediate points. Avton.,
telem.i sviaz' 3 no.7:27-28 J1 '59. (MIRA 12:12)

1. Zamestitel' nachal'nika Chitinskoy distantsei signalizatsii
i svyazi Zabaykal'skoy dorogi.
(Electric engineering) (Telephone)

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Je '65. (MIRA 18:5)

1. Zamestitel' nachal'nika Chitlinskoy distanteli Zabaykalskoy dorogi.

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Viticultural and winegrowing requirements in the field of species investigation and plant improvement; also, remarks by I. Tamassy and others. p. 223.
(KOZLEMENYEI. Vol. 12, no. 1/4, 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957.
Uncl.

KOLOS, Richard, egyetemi tanar; FISCHER, Imre; HARSANYI, Istvan, dr., docens, kozgazdasagi tudomanyok kandidatusa; LENGYEL, Karoly, dr., tudomanyos munkatars; BALASSA, Laszlo, foeloado; KOZMA, Pal, dr., fckonyvelo; KASPER, Egon, dr.; MACSKASZV, Pal; LUKACS, Laszlo, okleveles elektromernok; SANTA, Balint, dr.

Scientific conference on retraining instrument industry personnel.
Meres automat 13 no.2/3:66 '65.

1. Secretary General, Council on Science and Higher Education, Budapest (for Kolos).
2. Head, Directorate of Instrument Industry of the Ministry of Metallurgy and Machine Industry, Budapest (for Fischer).
3. Instrument Industry Research Institute, Budapest (for Lengyel).
4. National Price Office, Budapest (for Balassa)
5. Instrument and Business Machine Trading Organization, Budapest (for Kozma).
6. Group Head, Ministry of Finance, Budapest (for Kasper).
7. Directorate of Instrument Industry of the Ministry of Metallurgy and Machine Industry, Budapest (for Santa).

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1. Epitesugyi Miniszterium Elnoki es Jogi Foosztalyanak osztaly-
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Enforcing guarantee aims in the construction industry. Epites szemle 6 no.10:323-326 '62.

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Periodical: PAPIR A CELULOSA. Vol. 13, no. 9, Sept. 1958.

KOZMAL, E.; JURKOVIC, J. Use of halloysite and pictorial clay of Piestany as a filler in the paper industry. p. 201.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

Hydrogen-ion concentration and importance of its determination in the paper and cellulose industry. A. N. KUZMAL. *Chem. Obozr.* 7, 52-55 (Engl-h) (1932).—The smoothest pulp conditions are reached when the reaction mist. has the pH 5.0-5.5, which may be increased to pH 4.0 for loading of paper. In the sulfite method the yield of laccinations depends on H -ion concn., which is also important in the hydrolysis of the lignosulfonic acid formed. The end of the sulfite boiling cannot be detd. by the H -ion concn., however. The bleaching of cellulose is best above pH 9. For fiber mentation in waste water, the optimum pH is 4.0-4.2. Because of increased pressure used in steam boilers, special attention should be paid to feed water and its hardeners. The H -ion concn. has some significance in testing alk. of softened feed H_2O . Indicator methods are exclusively recommended for detn. of pH . JARONIAK KUČERA

43 - 364 METALLURGICAL LITERATURE CLASSIFICATION

Kozmal, F.

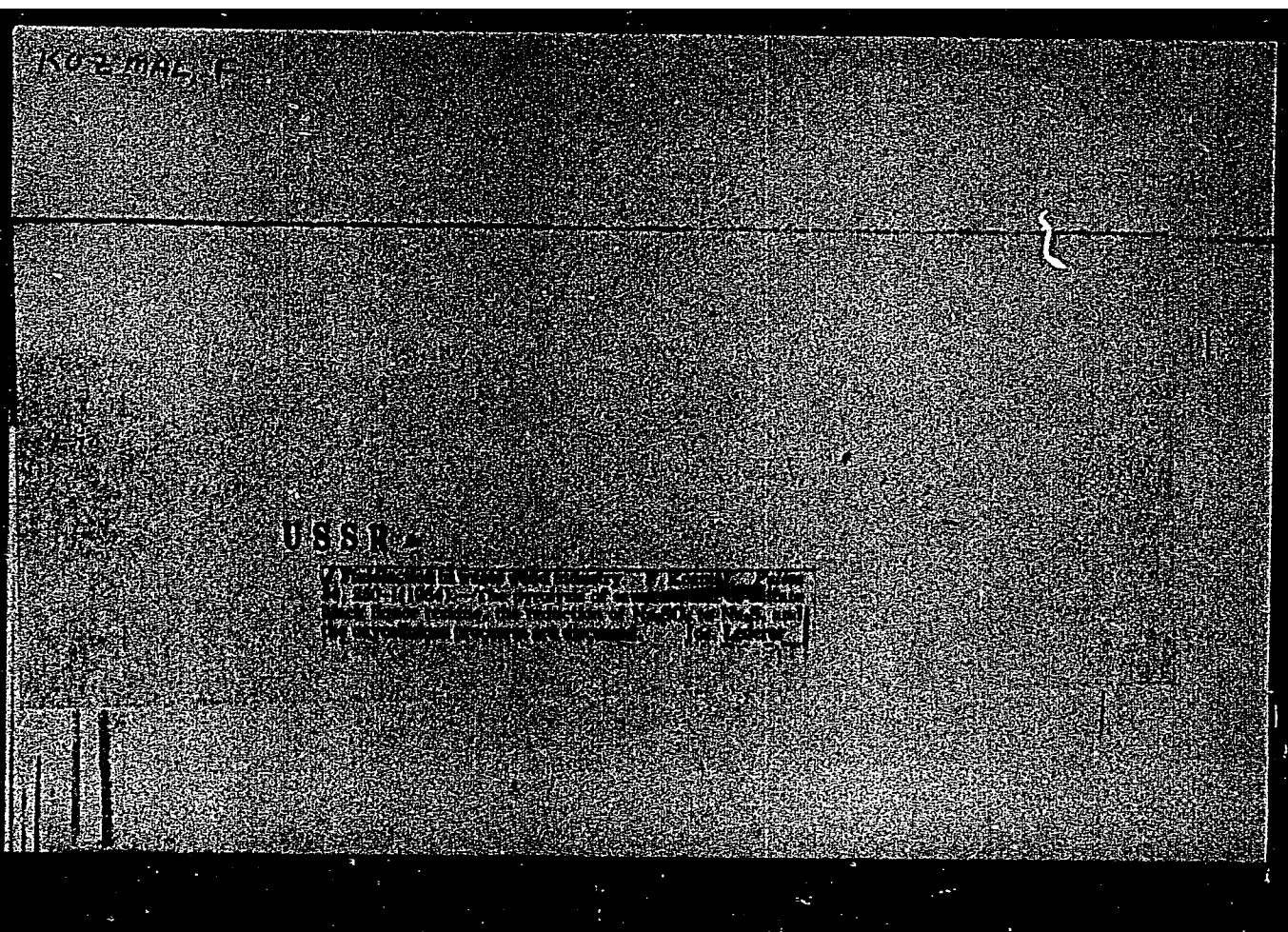
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SOURCE: EEAL - LC Vol. 5 No. 10 Oct. 1956

Kozmal, F.

Carboxyl groups in Celluloid. p. 251. PAPIR A CELULOZA. (Ministerstvo lesu a drevarskeho prumyslu) Praha. Vol. 9, no. 12, Dec. 1954.

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KOZMAL, FRANTISEK, #.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Applications. Artificial and Synthetic Fibers. K-4

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 6566

Author : Kozmal Frantisek

Inst : -

Title : Coagulating Hemicellulose from Centrifuged out Alkalies with Iron Compounds in Alkali Cellulose Production.

Orig Pub : Chem. zvesti, 1955, 9, No 7, 444-458

Abstract : A method of coagulating by the action of a Na_2FeO_4 solution produced by electrolysis of an iron anode in a 40% NaOH solution at 35°C is proposed. When alkalies are treated with this solution, an insoluble precipitate will be produced which may be easily filtered or centrifuged out. The transparent filtrate contains about 20 ml/l Fe, the extent of separation at a 2-4 gm/l Fe is as high as 18% initial concentration, as high as 90% at a concentration of 15 gm/l/ The properties of the

Card 1/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and
Applications. Artificial and Synthetic Fibers.

K-4

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 6566

obtained precipitate permit the hemicellulose (I) to be further chemically and biochemically refined. The optimum conditions were a relatively high I content in the solution and a 190-220 gm/l NaOH concentration in the ferrate solution. The new method is economical as it eliminates the necessity of a dialysis, decreases I losses by 60-70%, allows the purified alkalies to be recycled and substances which may be used as raw materials for other branches the industry to be recovered.

Card 2/2

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their II.
KozMAL, F. Application. Chemical Wood Products. Hydrolysis
Industry.

Abs Jour : Ref Zhur - Khimiya, No 10, 1959, 1613.

Author : KozMAL, F., Chack, J., Pihler, A.

Inst :

Title : The Utilization of Demicellulose.

Orig Pub : Paper in Khimiya, 1958, 13, No 6, 169-171.

Abstract : The existing methods of furfural production have been examined. The possibility of demicellulose utilization for this production have been noted, and basic parameters and conditions determining the furfural output have been verified. -- From the authors' resume.

Card 1/1

H 137

1959

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Their Applications. Cellulose and Its Derivatives.
Paper.

H

Abs Jour: Ref Zhur-Khin., No 8, 1959, 29834.

Author : Kozmal, F. and Jurkovic, J.

Inst ;

Title : The Utilization of Halloysite and Piestansk Malarial
Clay as Fillers in the Paper Industry.

Orig Pub: Papir a Celulosa, 13, No 9, 201-207 (1958) (in Slovak
with summaries in German, English, and Russian)

Abstract: The characteristics of new paper fillers have been
determined. A sieve analysis was made of both
clays. The new fillers and standard kaolin were
added in different amounts to three types of paper

Card : 1/2

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and
Their Applications. Cellulose and Its Derivatives.
Paper.

H

APPROVED FOR RELEASE: Monday, July 31, 2000

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Abs Jour: Ref Zhur-Khin., No 8, 1959, 29834.

pulp. The characteristics of the papers produced
from the various pulps were also determined. It
was found that Piestansk clay can be substituted
for kaolin in papers which do not require a high
degree of opacity. The opacity of halloysite is
greater than that of kaolin, but its retention on
the paper is less. The latter property can be
improved by washing and by colloidal grinding.
From a summary by the authors.

Card : 2/2

Country : Czechoslovakia
 Category : Chemical Technology. Chemical Products and Their Applications--Chemical wood products. Hydrolysis
 Abs. Jour. : industry. 40231
 Referat Zhur--Khim., No 11, 1959.
 Author : Rozmal, F. and Fendos, F.
 Institut. : Not given
 Title : Investigation of the Primary Cell Wall in Wood

Orig. Pub. : Papir a Celulosa, 13, No 10, 217-222 (1958)

Abstract : The local effect of chemical reagents on wood cells depends on the condition of the primary cell wall. It has been found that the effect of H_2SO_4 , H_3PO_4 , and $ZnCl_2$ on the cell wall under various conditions depends on the state of the surface of the fibers and shows a marked dependence on the chemical composition of the wood cellulose (C). The primary cell wall and the first layer of the secondary cell wall are considerably less resistant to acid solvents than to alkaline solvents. The surface of fibers of sulfate C shows little change after cooking, a fact which may be the explanation for the rela-

Card: 1/2

H-103

Country/	: Czechoslovakia	H-24
Category	:	
Abstr. Jour.	:	40231
Author	:	
Institut.	:	
Title	:	
Orig. Pub.	:	

Abstract : tively lower reactivity of sulfate C. No differences could be observed between the structure of the primary cell wall in spring and fall wood.
From author's summary

Copy 2/2

KOZMAL F.
 COUNTRY : CZECHOSLOVAKIA
 CATEGORY : Chemical Technology. Chemical Products and
 Their Applications. Cellulose and Its*
 ABS. JOUR. : RZKhlm., No. 23 1959, No. 84320
 AUTHOR : Kozmal, F.; Bucko, J.
 INST. : -
 TITLE : Acacia - A New Raw Material for the Cellulose-
 -Paper Industry.
 ORIG. PUB. : Nasa veda, 1959, 6, No 1, 3-5
 ABSTRACT : Described are experiments in the obtainment
 of cellulose (C) from acacia by employing
 sulfite and sulfate methods. In accordance
 with the first method, the yield of C is 40.9%
 and with the second is 38.9%. Raw cellulose
 has a darker color, than that derived from
 coniferous wood pulp, however, it can be blea-
 ched to higher degree of whiteness than the
 coniferous C. The α - cellulose content is
 89.0%, the absolute viscosity is 16.9 cp.
 Its strength, after prinding is 4695m.
 *Derivatives. Paper.
 CARD: 1/2

H - 141

COUNTRY : Czechoslovakia
CATEGORY : Chemical Technology H-33
Cellulose and Its Derivatives. Paper.
ABS. JOUR. : RZKhim., No. 20 1959, No. 73445
AUTHOR : Kozmal, F.; Bucko, J.
INST. :
TITLE : The Possibilities of Utilizing Acacia Wood
in Cellulose-and-Paper Industry
ORIG. PUB. : Papir a celul., 1959, 14, No 4, 73-77
ABSTRACT : Wood of Robinia pseudoacacia Z, was pulped
by the sulfite and the sulfate methods and the resultant
cellulose was bleached. Mechanical properties (tearing
strength, double-folding endurance, resistance to perfor-
ation) of the cellulose so obtained are satisfactory.
From Authors' Summary.

CARD: 1/1

KOZMAL, F.; RENDOS, F.

"Studies of the primary wood-cell wall." Pt. 2. P. 97.

PAPIR A CEJNLOSA. (Ministerstvo lesu a drevarskeho prumyslu). Praha, Czechoslovakia, Vol. 14, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

KOZMAL, F.; CERVINKA, O.

Pulping possibilities of eucalyptus wood. p. 196

PAPIR A CELULOZA. (Ministerstvo lesu a drevarského průmyslu) Praha,
Czechoslovakia. Vol. 14, no. 9, Sept. 1959

Monthly list of East European Accessions (EIAI) LC, vol. 9, no. 1,
Jan. 1960

Uncl.

KOZMAL, F.

A conference on new trends in wood pulp processing. Vestnik CSAV
71 no.1:82-84 '62.

1. Clen korespondent Slovenskej akademie vied.